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Joint Polar Satellite System (JPSS)
Algorithm Specification Volume I:
Software Requirement Specification
(SRS) for Ancillary Data Handling
Gridding and Granulation



National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, Maryland

**Joint Polar Satellite System (JPSS) Algorithm Specification
Volume I:
Software Requirement Specification
(SRS) for Ancillary Data Handling Gridding and
Granulation
JPSS Review/Approval Page**

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Preface

This document is under JPSS Ground Project configuration control. Once this document is approved, JPSS approved changes are handled in accordance with Class I and Class II change control requirements as described in the JPSS Configuration Management Procedures, and changes to this document shall be made by complete revision.

Any questions should be addressed to:

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Change History Log

Revision	Effective Date	Description of Changes (Reference the CCR & CCB/ERB Approve Date)
Rev-	Aug. 29, 2013	This version incorporates 474-CCR-13-1214 which was approved by JPSS Ground ERB on the effective date shown.
A	Jan. 30, 2014	This version incorporates 474-CCR-14-1721 and 474-CCR-14-1741 which was approved by JPSS Ground ERB on the effective date shown.
A1	Oct. 23, 2014	This version incorporates 474-CCR-14-2091 which was approved by the JPSS Ground ERB for CO10 on the effective date shown.
B	Aug. 14, 2014	This version incorporates 474-CCR-14-1781 and 474-CCR-14-1832 which was approved by JPSS Ground ERB on the effective date shown.
C	Feb. 02, 2015	This version incorporates 474-CCR-14-2219, which was approved by JPSS Ground ERB on the effective date shown.
D	Apr 05, 2016	This version incorporates 474-CCR-14-2110, 474-CCR-15-2452, 474-CCR-15-2480, 474-CCR-15-2657 and 474-CCR-16-2827 which was approved by JPSS Ground ERB on the effective date shown.

List of TBx Items

TBx	Type	ID	Text	Action
None				

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1 Introduction

The Joint Polar Satellite System (JPSS) is the National Oceanic and Atmospheric Administration's (NOAA) next-generation operational Earth observation program that acquires and distributes global environmental data primarily from multiple polar-orbiting satellites. The program plays a critical role in NOAA's mission to understand and predict changes in weather, climate, oceans and coasts, and the space environment, which support the Nation's economy and protect lives and property. The first JPSS satellite mission, the Suomi National Polar-orbiting Partnership (S-NPP) satellite, successfully launched in October 2011. S-NPP, along with the legacy NOAA Polar Operational Environmental Satellites (POES), provides continuous environmental observations. Two JPSS satellites will follow S-NPP: JPSS-1, planned for launch in fiscal year (FY) 2017, with JPSS-2 to follow in FY2022.

In addition to the JPSS Program's own satellites operating in the 1330 (± 10) Local Time of the Ascending Node (LTAN) orbit, NOAA also leverages mission partner assets for complete global coverage. These partner assets include the Department of Defense (DoD) Defense Meteorological Satellite Program (DMSP) operational weather satellites (in the 1730 - 1930 LTAN orbit), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) Meteorological Operational (Metop) satellites (in the 2130 LTAN orbit) and the Japanese Aerospace Exploration Agency (JAXA) Global Change Observation Mission-Water (GCOM-W) satellite (in the 1330 LTAN orbit). JPSS routes Metop data from McMurdo Station, Antarctica to the EUMETSAT facility in Darmstadt, Germany and EUMETSAT, in turn, provides Metop data to NOAA. For GCOM, JPSS routes the GCOM-W data from Svalbard, Norway through the NOAA Satellite Operations Facility (NSOF) in Suitland, MD, processes GCOM-W data and delivers GCOM-W products to the JPSS users who have JAXA permissions.

Additionally, the JPSS Program provides data acquisition and routing support to the DMSP and the WindSat Coriolis Program. JPSS routes DMSP data from McMurdo Station to the 557th Weather Wing at Offutt Air Force Base in Omaha, NE. After processing, the 557th releases the DMSP data for public consumption over the Internet via the National Geophysical Data Center in Boulder, CO. The JPSS Program provides data routing support to the National Science Foundation (NSF), as well as the National Aeronautics and Space Administration (NASA) Space Communications and Navigation (SCaN)-supported missions, which include the Earth Observing System (EOS). As part of the agreements for the use of McMurdo Station, JPSS provides communications/network services for the NSF between McMurdo Station, Antarctica and Centennial, Colorado.

As a multi-mission ground infrastructure, the JPSS Ground System supports the heterogeneous constellation of the before-mentioned polar-orbiting satellites both within and outside the JPSS Program through a comprehensive set of services as listed in Table 1-1.

Table: 1-1 JPSS Ground System Services

Service	Description
Enterprise Management and Ground Operations	Provides mission management, mission operations, ground operations, contingency management and system sustainment
Flight Operations	Provides launch support and early orbit operations, telemetry and commanding, orbital operations, mission data playback, payload support, flight software upgrade, flight vehicle simulation, and disposal at the end of mission life
Data Acquisition	Provides space/ground communications for acquiring mission data
Data Routing	Provides routing of telemetry, mission and/or operations data through JPSS' global data network
Data Product Generation	Provides the processing of mission data to generate and distribute raw, sensor, environmental, and ancillary data products
Data Product Calibration and Validation	Provides calibration and validation of the data products
Field Terminal Support	Provides development and operational support to the Field Terminal customers

1.1 Identification

This SRS provides requirements relating to support algorithms that process inputs from external data sources feeding many VIIRS Environmental Data Records (EDRs), including Cloud Mask, Surface Type, Surface Temperature, and Albedo, or feeding OMPS SDR or Ozone EDR products. Products generated in the process include gridded Intermediate Products (Grid IP), granulated IP, or granulated Ancillary data (ANC).

1.2 Algorithm Overview

There are 3 types of algorithms: gridding of granulated products, gridding of gridded products, and granulation of gridded products. Gridding is the process of accumulating, or compositing pixel data into earth-model grid cells. Granulation is the process of referencing ancillary data and previously gridded IPs to sensor data. External data sources are considered "ancillary" inputs. Parameters gridded or granulated for input to IDPS are related to ice and snow cover, vegetation cover, surface reflectance, surface albedo, quarterly surface type, and surface type.

1.3 Document Overview

Section	Description
Section 1	Introduction - Provides a brief overview of the JPSS Ground System and the relevant algorithm, as reference material only.
Section 2	Related Documentation - Lists related documents and identifies them as Parent, Applicable, or Information Documents such as, MOAs, MOUs, technical implementation agreements, as well as Data Format specifications. This section also establishes an order of precedence in the event of conflict between two or more documents.
Section 3	Algorithm Requirements - Provides a summary of the science requirements for the products covered by this volume.
Appendix A	Requirements Attributes - Provides the mapping of requirements to verification methodology and attributes.

2 Related Documentation

The latest JPSS documents can be obtained from URL:

https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm. JPSS Project documents have a document number starting with 470, 472 or 474 indicating the governing Configuration Control Board (CCB) (Program, Flight, or Ground) that has the control authority of the document.

2.1 Parent Documents

The following reference document(s) is (are) the Parent Document(s) from which this document has been derived. Any modification to a Parent Document will be reviewed to identify the impact upon this document. In the event of a conflict between a Parent Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Doc. No.	Document Title
470-00067	Joint Polar Satellite System (JPSS) Ground System Requirements Document (GSRD)
470-00067-02	Joint Polar Satellite System (JPSS) Ground System Requirements Document (GSRD), Volume 2 - Science Product Specification
474-00448-01-01	Joint Polar Satellite System (JPSS) Algorithm Specification Volume I: Software Requirements Specification (SRS) for the Common Algorithms

2.2 Applicable Documents

The following document(s) is (are) the Applicable Document(s) from which this document has been derived. Any modification to an Applicable Document will be reviewed to identify the impact upon this document. In the event of conflict between an Applicable Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Doc. No.	Document Title
D0001-M01-S01-027	Joint Polar Satellite System (JPSS) VIIRS Earth Gridding Algorithm Theoretical Basis Document (ATBD)
474-00448-02-07	Joint Polar Satellite System (JPSS) Algorithm Specification Volume II: Data Dictionary for the Ancillary Data Handling Gridding and Granulation
474-00448-04-07	Joint Polar Satellite System (JPSS) Algorithm Specification Volume IV: Software Requirements Software Parameter File (SRSPF)for the Ancillary Data Handling Gridding and Granulation

2.3 Information Documents

The following documents are referenced herein and amplify or clarify the information presented in this document. These documents are not binding on the content of this document.

Doc. No.	Document Title
474-00333	Joint Polar Satellite System (JPSS) Ground System (GS) Architecture Description Document (ADD)
474-00054	Joint Polar Satellite System (JPSS) Ground System (GS) Concept of Operations (ConOps)
470-00041	Joint Polar Satellite System (JPSS) Program Lexicon

Doc. No.	Document Title
474-00448-03-07	Joint Polar Satellite System (JPSS) Algorithm Specification Volume III: Operational Algorithm Description (OAD) for the Ancillary Data Handling Gridding and Granulation
429-05-02-42	Joint Polar Satellite System (JPSS) Mission Data Format Control Book for NPP
472-00251	Joint Polar Satellite System (JPSS) Mission Data Format Control Book for JPSS-1

3 Algorithm Requirements

3.1 Blocks and Modes

3.1.1 Normal Mode Performance

Not applicable.

3.1.2 Graceful Degradation Mode Performance

Not applicable.

3.2 Algorithm Functional Requirements

3.2.1 Product Production Requirements

Not applicable.

3.2.2 Algorithm Science Requirements

SRS.01.07_161 The Grid-to-Grid software shall incorporate a computing algorithm provided for data reduction and gridding of the VIIRS NBAR NDVI Rolling Tile gridded IP.

Rationale: Algorithms are established in accordance with the JPSS VIIRS Earth Gridding ATBD (D0001-M01-S01-027).

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_162 The Gran-to-Grid software shall incorporate a computing algorithm provided for gridding of a merged VIIRS Snow Cover Binary Map EDR and Sea Ice Concentration IP with a gridded Global Multisensor Automated Snow/Ice (GMASI) Map into a Snow/Ice Cover Rolling Tile gridded IP.

Rationale: Algorithms are established in accordance with the JPSS VIIRS Earth Gridding ATBD (D0001-M01-S01-027). The Snow/Ice Cover Gridded IP is updated with information of the Snow Cover EDR process, Ice information from the Ice Concentration IP, and ancillary data from the NOAA Global Multisensor Automated Snow/Ice Map.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_164 The Grid-to-Grid software shall incorporate a computing algorithm provided for gridding and post-compositing the SR-BT-VI Monthly Final Tile gridded IP.

Rationale: Algorithms are established in accordance with the JPSS VIIRS Earth Gridding ATBD (D0001-M01-S01-027).

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_168 The Grid-to-Grid software shall incorporate a computing algorithm provided for albedo and gridding of the VIIRS Land Surface Albedo 17-day Tile gridded IP.

Rationale: Algorithms are established in accordance with the JPSS VIIRS Earth Gridding ATBD (D0001-M01-S01-027).

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_991 The Grid-to-Grid software shall incorporate a computing algorithm provided for data reduction and gridding of NBAR-NDVI-Monthly and NBAR-NDVI-17-day Tile gridded IPs.

Rationale: Algorithms are established in accordance with the JPSS VIIRS Earth Gridding ATBD (D0001-M01-S01-027).

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_992 The Grid-to-Grid software shall incorporate a computing algorithm provided for albedo and gridding of BRDF Archetypal 17-day Tile gridded IP.

Rationale: Algorithms are established in accordance with the JPSS VIIRS Earth Gridding ATBD (D0001-M01-S01-027).

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_178 The ANC-to-Grid software shall reformat the NOAA Global Multi-sensor Automated Snow Ice Cover (GMASI) to a Snow/Ice Cover Rolling Tile gridded IP format.

Rationale: The GMASI ancillary inputs need to match the format for the desired output data product Snow/Ice Cover Rolling Tile gridded IP.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_181 The granulation software shall granulate time interpolated versions of the NCEP GFS forecasts to a VIIRS granulation.

Rationale: The ancillary inputs need to match the granulation for the desired output data product. The 3 and 6 hour forecasts are granulated in normal modes of operation. In graceful degradation, extended forecasts up to 24 hours may be used.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_963 The granulation software shall regranulate time interpolated versions of the NCEP GFS forecasts to an OMPS granulation.

Rationale: The ancillary inputs need to match the granulation for the desired output data product. The 3 and 6 hour forecasts are granulated in normal modes of operation. In graceful degradation, extended forecasts up to 24 hours may be used.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_182 The granulation software shall granulate time interpolated versions of the NAAPS Total Optical Depth forecast to a VIIRS granulation.

Rationale: The ancillary inputs need to match the granulation for the desired output data product. The 3 and 6 hour forecasts are granulated in normal modes of operation. In graceful degradation, extended forecasts up to 24 hours may be used.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_965 The granulation software shall granulate time interpolated versions of the NAVGEM forecasts to an OMPS granulation.

Rationale: The ancillary inputs need to match the granulation for the desired output data product. The 3 and 6 hour forecasts are granulated in normal modes of operation. In graceful degradation, extended forecasts up to 24 hours may be used.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_966 The granulation software shall regranulate select VIIRS products to an OMPS granulation.

Rationale: The following VIIRS products are regranulated for use in OMPS processing: Gridded Snow/Ice Cover IP, Snow Cover EDR, Ice Surface Temperature EDR, and Quarterly Surface Type Ancillary data.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_183 The granulation software shall granulate time interpolated versions of the NAVGEM forecasts to a VIIRS granulation.

Rationale: The ancillary inputs need to match the granulation for the desired output data product. The 3 and 6 hour forecasts are granulated in normal modes of operation. In graceful degradation, extended forecasts up to 24 hours may be used.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.2.3 Algorithm Exception Handling

SRS.01.07_974 The VIIRS Snow/Ice Cover Gran IP software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <SnowIceCover_GranIP><fill>.

Rationale: The IP software through its computing algorithm must fill the VIIRS Snow/Ice Cover Gran IP values if downstream processes require fill values for the empty grid in the template tile based on the established fill conditions to satisfy exclusion and fill conditions.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_975 The VIIRS Gridded Snow/Ice Cover Rolling Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <SnowIceCover_GridIP><fill>.

Rationale: The Gridded IP software must supply values for all on-earth VIIRS Snow/Ice Cover Rolling Tile Gridded IP cells. When valid data is not available, the GIP will not be updated. Off earth tiles contain FILL in general but this is not updated by the Gridded IP software.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_976 The VIIRS SR-BT-VI Monthly Final Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm

Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation
 (474-00448-04-07) <MonthBT-SR-VI_GridIP><fill>.

Rationale: The Gridded IP software must supply values for all land VIIRS SR-BT-VI Monthly Final Tile Gridded IP cells. When valid data is not available, the GIP will not be updated. Off earth tiles contain FILL in general but this is not updated by the Gridded IP software.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_977 The VIIRS Land Surface Albedo 17-day Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <LSA_GridIP><fill>.

Rationale: The Gridded IP software must supply values for all land VIIRS Land Surface Albedo 17-day Tile Gridded IP cells. When valid data is not available, the GIP will not be updated. Off earth tiles contain FILL in general but this is not updated by the Gridded IP software.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_978 The VIIRS NBAR NDVI Rolling Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <Roll-NBAR-NDVI_GridIP><fill>.

Rationale: The Gridded IP software must supply values for all land VIIRS NBAR NDVI Rolling Tile Gridded IP cells. When valid data is not available, the GIP will not be updated. Off earth tiles contain FILL in general but this is not updated by the Gridded IP software.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.3 External Interfaces

3.3.1 Inputs

SRS.01.07_962 The gridding and granulation software shall incorporate inputs as specified in Table 3-1.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_986 The Gran-To-Grid software shall ingest tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: This defines the formats for Lookup Tables, and Processing Coefficients for input into the algorithm module.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_993 The Grid-To-Grid software shall ingest tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data

Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: This defines the formats for Lookup Tables, and Processing Coefficients for input into the algorithm module.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_987 The VIIRS Snow/Ice Cover IP software shall ingest tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: This defines the formats for Lookup Tables, and Processing Coefficients for input into the algorithm module.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_989 The Gran-To-Grid software shall ingest ancillary data formatted in accordance with Section 6 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: This defines the formats for Lookup Tables, and Processing Coefficients for input into the algorithm module.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_994 The Grid-To-Grid software shall ingest ancillary data formatted in accordance with Section 6 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: This defines the formats for Lookup Tables, and Processing Coefficients for input into the algorithm module.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

Table 3-1 and Figure 3-1 are best viewed together since they describe the processes governed by this SRS in different ways. The figure diagrams the data flowing into, out of, and within the code governed by this SRS. The table lists these same data interactions as well as all downstream dependencies for outputs from this SRS.

Each row in the table describes a single software interaction - data flowing from one software item to another. The data is listed in the first column. The second and third columns include the short name and mnemonic for the data. Blanks indicate there is no mnemonic. The fourth and fifth columns contain the SRS that generates the data product(s) in the first column, and the SRS that receives those products. The final two columns contain the actual function name in Algorithm Development Library (ADL) that produces those products, and the function that inputs those products. The SRS's titled "Ingest MSD" and "Store/Retrieve" are non-existent SRS's functioning as data handling for the IDPS. The software functions "Store Products" and "Retrieve Products" are similar non-existent functions that operate as IDPS data handling.

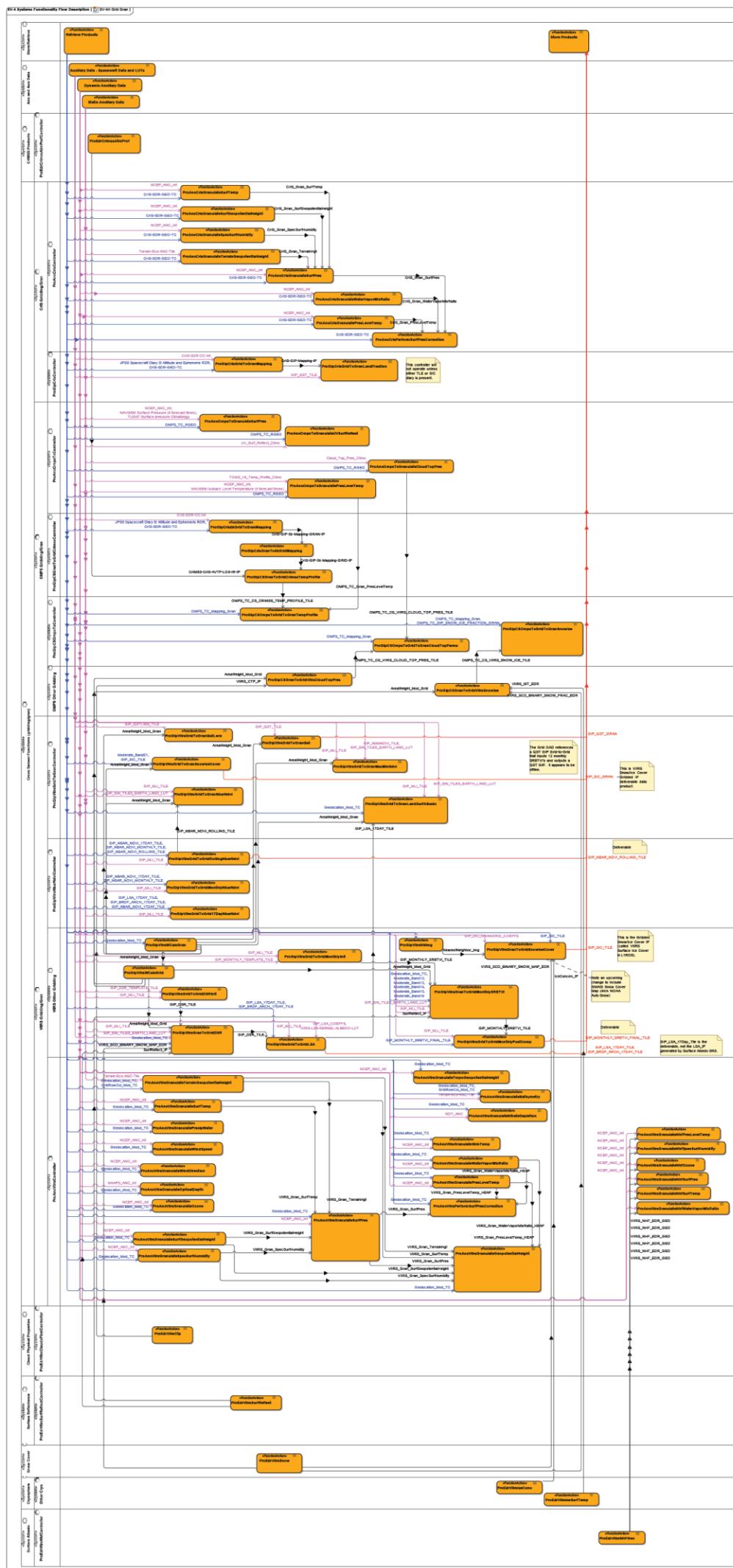


Figure: 3-1 Ancillary Data Handling Gridding and Granulation Data Flows

Table: 3-1 Systems Resource Flow Matrix: Ancillary Data Handling Gridding and Granulation

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
1	•Cloud_Top_Pres_Climo	•NASA-Code916-ANC	•AN_NP-L10020-001	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncOmpsTcGranulateCloudTopPres
2	•OMPS_TC_RGEO	•OMPS-TC-GEO	•None	Store/Retrieve (OMPS TC SDR)	Grid Gran	Retrieve Products	ProAncOmpsTcGranulateCloudTopPres
3	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncOmpsTcGranulatePresLevelTemp
4	•TOMS_V8_Temp_Profile_Climo	•TOMS-Temp-Clima-ANC	•AN_NP-L20230-004	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncOmpsTcGranulatePresLevelTemp
5	•FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncOmpsTcGranulatePresLevelTemp
6	•OMPS_TC_RGEO	•OMPS-TC-GEO	•None	Store/Retrieve (OMPS TC SDR)	Grid Gran	Retrieve Products	ProAncOmpsTcGranulatePresLevelTemp
7	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncOmpsTcGranulateSurfPres
8	•TUG87	•Surf-Press-TUG87-Cl-ANC	•AN_NP-L20210-002	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncOmpsTcGranulateSurfPres
9	• FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncOmpsTcGranulateSurfPres
10	•OMPS_TC_RGEO	•OMPS-TC-GEO	•None	Store/Retrieve (OMPS TC SDR)	Grid Gran	Retrieve Products	ProAncOmpsTcGranulateSurfPres
11	•UV_Surf_Reflect_Climo	•Surf-Refl-ANC	•AN_NP-L10220-001	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncOmpsTcGranulateUVSurfReflect

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
12	•OMPS_TC_RGEO	•OMPS-TC-GEO	•None	Store/Retrieve (OMPS TC SDR)	Grid Gran	Retrieve Products	ProAncOmpsTcGranulateUVSurfReflect
13	•Terrain-Eco-ANC-Tile	•Terrain-Eco-ANC-Tile	•AN_NP-L10100-003	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncViirsGranulateBathymetry
14	•Geolocation_Mod_TC	•VIIRS-MOD-RGEO-TC	•None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGranulateBathymetry
15	•GridRowCol_Mod_TC	•VIIRS-MOD-GRC-TC	•None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGranulateBathymetry
16	•VIIRS_Gran_TerrainHgt	•VIIRS-ANC-Surf-Ht-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateTerrainGeopotentialHeight	ProAncViirsGranulateGeopotentialHeight
17	•VIIRS_Gran_SurfGeopotentialHeight	•VIIRS-ANC-Geopot-Ht-Lev-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateSurfGeopotentialHeight	ProAncViirsGranulateGeopotentialHeight
18	•VIIRS_Gran_SpecSurfHumidity	•VIIRS-ANC-Sp-Humd-Surf-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateSpecSurfHumidity	ProAncViirsGranulateGeopotentialHeight
19	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateSurfPres	ProAncViirsGranulateGeopotentialHeight
20	•VIIRS_Gran_WaterVaporMixRatio_HEAP	•VIIRS-ANC-Wtr-Vpr-Mix-Ratio-Lev-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateWaterVaporMixRatio	ProAncViirsGranulateGeopotentialHeight
21	•VIIRS_Gran_PresLevelTemp_HEAP	•VIIRS-ANC-Iso-Lev-Temp-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulatePresLevelTemp	ProAncViirsGranulateGeopotentialHeight
22	•VIIRS_Gran_SurfTemp	•VIIRS-ANC-Temp-Surf2M-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateSurfTemp	ProAncViirsGranulateGeopotentialHeight

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
23	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateGeopot entialHeight
24	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfOzo ne
25	• FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfOzo ne
26	•VIIRS_NHF_EDR_GEO	•VIIRS-NHF-EDR-GEO	•None	Surface Albedo	Grid Gran	ProEdrViirsN HFGeo	ProAncViirsGr anulateNhfOzo ne
27	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfPres LevelTemp
28	•VIIRS_NHF_EDR_GEO	•VIIRS-NHF-EDR-GEO	•None	Surface Albedo	Grid Gran	ProEdrViirsN HFGeo	ProAncViirsGr anulateNhfPres LevelTemp
29	• FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfPres LevelTemp
30	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfSpe cSurfHumidity
31	• FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfSpe cSurfHumidity
32	•VIIRS_NHF_EDR_GEO	•VIIRS-NHF-EDR-GEO	•None	Surface Albedo	Grid Gran	ProEdrViirsN HFGeo	ProAncViirsGr anulateNhfSpe cSurfHumidity
33	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfSurf Pres

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
34	• FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfSurf Pres
35	•VIIRS_NHF_EDR_GEO	•VIIRS-NHF-EDR-GEO	•None	Surface Albedo	Grid Gran	ProEdrViirsN HFGeo	ProAncViirsGr anulateNhfSurf Pres
36	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfSurf Temp
37	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfSurf Temp
38	•VIIRS_NHF_EDR_GEO	•VIIRS-NHF-EDR-GEO	•None	Surface Albedo	Grid Gran	ProEdrViirsN HFGeo	ProAncViirsGr anulateNhfSurf Temp
39	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfWat erVaporMixRatio
40	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateNhfWat erVaporMixRatio
41	•VIIRS_NHF_EDR_GEO	•VIIRS-NHF-EDR-GEO	•None	Surface Albedo	Grid Gran	ProEdrViirsN HFGeo	ProAncViirsGr anulateNhfWat erVaporMixRatio
42	•NDT_ANC	•Nitr-Depl-Temp-ANC	•AN_NP-L10120-001	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncViirsGr anulateNitrate Depletion
43	•Geolocation_Mod_TC	•VIIRS-MOD-RGEO-TC	•None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateNitrate Depletion

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
44	•NAAPS_ANC_Int	•NAAPS-ANC-Int	•AN_NP-L10015	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateOptical Depth
45	•VIIRS-AOT-CLIMO	•AOT-ANC	•AN_NP-L10010-001	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncViirsGr anulateOptical Depth
46	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateOptical Depth
47	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateOzone
48	•FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateOzone
49	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateOzone
50	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulatePrecip Water
51	•FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulatePrecip Water
52	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulatePrecip Water
53	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulatePresLev elTemp
54	•FNMOC-Anc-Int	•FNMOC-ANC-Int	•AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulatePresLev elTemp
55	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulatePresLev elTemp

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
56	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSkinTe mp
57	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSkinTe mp
58	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateSkinTe mp
59	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSpecSu rfHumidity
60	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSpecSu rfHumidity
61	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateSpecSu rfHumidity
62	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSurfGe opotentialHeig ht
63	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSurfGe opotentialHeig ht
64	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateSurfGe opotentialHeig ht
65	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSurfPre s

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
66	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSurfPre s
67	•VIIRS_Gran_SurfTemp	•VIIRS-ANC-Temp-Surf2M-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGr anulateSurfTemp	ProAncViirsGr anulateSurfPre s
68	•VIIRS_Gran_TerrainHgt	•VIIRS-ANC-Surf-Ht-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGr anulateTerrain GeopotentialHeight	ProAncViirsGr anulateSurfPre s
69	•VIIRS_Gran_SpecSurfHumidity	•VIIRS-ANC-Sp-Humd-Surf-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGr anulateSpecSurfHumidity	ProAncViirsGr anulateSurfPre s
70	•VIIRS_Gran_SurfGeopotentialHeight	•VIIRS-ANC-Geopot-Ht-Lev-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGr anulateSurfGeopotentialHeight	ProAncViirsGr anulateSurfPre s
71	•Geolocation_Mod_TC_Unexpected	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateSurfPre s
72	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSurfTemp
73	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateSurfTemp
74	•Geolocation_Mod_TC_Unexpected	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateSurfTemp
75	•Terrain-Eco-ANC-Tile	•Terrain-Eco-ANC-Tile	•AN_NP-L10100-003	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProAncViirsGr anulateTerrain GeopotentialHeight
76	•Geolocation_Mod_TC •GridRowCol_Mod_TC	•VIIRS-MOD-RGEO-TC	•None •None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateTerrain

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
		•VIIRS-MOD-GRC-TC					Geopotential Height
77	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateTropoG eopotentialHei ght
78	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateTropoG eopotentialHei ght
79	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateTropoG eopotentialHei ght
80	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateWaterV aporMixRatio
81	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateWaterV aporMixRatio
82	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateWaterV aporMixRatio
83	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateWindDi rection
84	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateWindDi rection
85	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGr anulateWindDi rection
86	• FNMOC-Anc-Int	•FNMOC-ANC-Int	• AN_NP-L20000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGr anulateWindSp ee

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
87	•NCEP_ANC_Int	•NCEP-ANC-Int	•AN_NP-L10000	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProAncViirsGranulateWindSpeed
88	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsGranulateWindSpeed
89	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateSurfPres	ProAncViirsPerformSurfPres Correction
90	•VIIRS_Gran_WaterVapor MixRatio HEAP	•VIIRS-ANC-Wtr-Vpr-Mix-Ratio-Lev-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulateWaterVaporMixRatio	ProAncViirsPerformSurfPres Correction
91	•VIIRS_Gran_PresLevelTemp HEAP	•VIIRS-ANC-Iso-Lev-Temp-Mod-Gran	•None	Grid Gran	Grid Gran	ProAncViirsGranulatePresLevelTemp	ProAncViirsPerformSurfPres Correction
92	•Geolocation_Mod_TC_Une xt	•VIIRS-MOD-RGEO-TC-UNEXT	•	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProAncViirsPerformSurfPres Correction
93	•OMPS_TC_Gran_SurfPres	•OMPS-TC-ANC-Press-Surf-Gran	•None	Grid Gran	Ozone Nadir Profile	ProAncOmpsTcGranulateSurfPres	ProEdrOmpsNpGlueware
94	•OMPS_TC_Gran_SurfPres _NEXT	•OMPS-TC-ANC-Press-Surf-Gran	•None	Grid Gran	Ozone Nadir Profile	ProAncOmpsTcGranulateSurfPres	ProEdrOmpsNpGlueware
95	•OMPS_TC_CS_GRIDIP_VIIRS_CLOUD_FRAC_GR AN •OMPS_TC_CS_GRIDIP_VIIRS_CLOUD_TOP_PRE_S_GRAN	•OMPS-TC-CS-GridIP-VIIRS-Cloud-Frac-Gran •OMPS-TC-CS-GridIP-VIIRS-Cloud-Top-Pres-Gran	•None •None	Grid Gran	Ozone Total Column	ProGipCSOmpsTcGridToGranCloudTopParams	ProEdrOmpsTcEdr
96	•OMPS_TC_CS_GRIDIP_VIIRS_SNOW_ICE_GRAN	•OMPS-TC-CS-GridIP-VIIRS-Snow-Ice-Gran	•None	Grid Gran	Ozone Total Column	ProGipCSOmpsTcGridToGranSnowIce	ProEdrOmpsTcEdr

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
97	•OMPS_TC_Gran_UVSurf Reflect	•OMPS-TC-ANC-UV-Surf-Reflect-Gran	•None	Grid Gran	Ozone Total Column	ProAncOmpsTcGranulateUVSurfReflect	ProEdrOmpsTcEdr
98	•OMPS_TC_Gran_SurfPres	•OMPS-TC-ANC-Press-Surf-Gran	•None	Grid Gran	Ozone Total Column	ProAncOmpsTcGranulateSurfPres	ProEdrOmpsTcEdr
99	•OMPS_TC_Gran_PresLeve lTemp	•OMPS-TC-ANC-Temp-Press-Lay-Gran	•None	Grid Gran	Ozone Total Column	ProAncOmpsTcGranulatePresLevelTemp	ProEdrOmpsTcEdr
100	•OMPS_TC_Gran_UVSurf Reflect	•OMPS-TC-ANC-UV-Surf-Reflect-Gran	•None	Grid Gran	Ozone Total Column	ProAncOmpsTcGranulateUVSurfReflect	ProEdrOmpsTcIp
101	•OMPS_TC_Gran_PresLeve lTemp	•OMPS-TC-ANC-Temp-Press-Lay-Gran	•None	Grid Gran	Ozone Total Column	ProAncOmpsTcGranulatePresLevelTemp	ProEdrOmpsTcIp
102	•OMPS_TC_Gran_CloudTo pPres	•OMPS-TC-ANC-Cd-Top-Pres-Gran	•None	Grid Gran	Ozone Total Column	ProAncOmpsTcGranulateCloudTopPres	ProEdrOmpsTcIp
103	•OMPS_TC_Gran_SurfPres	•OMPS-TC-ANC-Press-Surf-Gran	•None	Grid Gran	Ozone Total Column	ProAncOmpsTcGranulateSurfPres	ProEdrOmpsTcIp
104	•GIP_QSTLWM_GRAN	•VIIRS-GridIP-VIIRS-Qst-Lwm-Mod-Gran	•None	Grid Gran	Active Fires	ProGipViirsGridToGranQstLwm	ProEdrViirsActiveFires
105	•VIIRS_Gran_Ozone	•VIIRS-ANC-Tot-Col-Mod-Gran	•None	Grid Gran	Aerosol Products	ProAncViirsGranulateOzone	ProEdrViirsAerosol
106	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Aerosol Products	ProAncViirsGranulateOpticalDepth	ProEdrViirsAerosol
107	•VIIRS_Gran_WindDir	•VIIRS-ANC-Wind-Direction-Mod-Gran	•None	Grid Gran	Aerosol Products	ProAncViirsGranulateWindDirection	ProEdrViirsAerosol
108	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Aerosol Products	ProAncViirsGranulateSurfPres	ProEdrViirsAerosol

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
109	•VIIRS_Gran_SurfTemp	•VIIRS-ANC-Temp-Surf2M-Mod-Gran	•None	Grid Gran	Aerosol Products	ProAncViirsGranulateSurfTemp	ProEdrViirsAerosol
110	•VIIRS_Gran_PW	•VIIRS-ANC-Preci-Wtr-Mod-Gran	•None	Grid Gran	Aerosol Products	ProAncViirsGranulatePrecipWater	ProEdrViirsAerosol
111	•VIIRS_Gran_WindSpd	•VIIRS-ANC-Wind-Speed-Mod-Gran	•None	Grid Gran	Aerosol Products	ProAncViirsGranulateWindSpeed	ProEdrViirsAerosol
112	•VIIRS_Gran_TerrainHgt	•VIIRS-ANC-Surf-Ht-Mod-Gran	•None	Grid Gran	Cloud Physical Properties	ProAncViirsGranulateTerrainGeopotentialHeight	ProEdrViirsCbh
113	•GIP_NBAR_NDVI_GRAN	•VIIRS-GridIP-VIIRS-Nbar-Ndvi-Mod-Gran	•None	Grid Gran	Cloud Mask	ProGipViirsGridToGranNbarNdvi	ProEdrViirsCM
114	•GIP_SIC_GRAN	•VIIRS-GridIP-VIIRS-Snow-Ice-Cover-Mod-Gran	•IMPI_VSIC_R0100	Grid Gran	Cloud Mask	ProGipViirsGridToGranSnowIceCover	ProEdrViirsCM
115	•GIP_QSTLWM_GRAN	•VIIRS-GridIP-VIIRS-Qst-Lwm-Mod-Gran	•None	Grid Gran	Cloud Mask	ProGipViirsGridToGranQstLwm	ProEdrViirsCM
116	•VIIRS_Gran_WindSpd	•VIIRS-ANC-Wind-Speed-Mod-Gran	•None	Grid Gran	Cloud Mask	ProAncViirsGranulateWindSpeed	ProEdrViirsCM
117	•VIIRS_Gran_PW	•VIIRS-ANC-Preci-Wtr-Mod-Gran	•None	Grid Gran	Cloud Mask	ProAncViirsGranulatePrecipWater	ProEdrViirsCM
118	•VIIRS_Gran_SurfTemp	•VIIRS-ANC-Temp-Surf2M-Mod-Gran	•None	Grid Gran	Cloud Mask	ProAncViirsGranulateSurfTemp	ProEdrViirsCM
119	•VIIRS_Gran_TerrainHgt	•VIIRS-ANC-Surf-Ht-Mod-Gran	•None	Grid Gran	Cloud Mask	ProAncViirsGranulateTerrainGeopotentialHeight	ProEdrViirsCM

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
120	•VIIRS_Gran_SkinTemp	•VIIRS-ANC-Temp-Skin-Mod-Gran	•None	Grid Gran	Cloud Optical Properties	ProAncViirsGranulateSkinTemp	ProEdrViirsCOp
121	•VIIRS_Gran_PresLevelTemp •VIIRS_Gran_WaterVaporMixRatio	•VIIRS-ANC-Iso-Lev-Temp-Mod-Gran •VIIRS-ANC-Wtr-Vpr-Mix-Ratio-Lev-Mod-Gran	•None •None	Grid Gran	Cloud Optical Properties	ProAncViirsPerformSurfPresCorrection	ProEdrViirsCOp
122	•VIIRS_Gran_TropoGeopotentialHeight	•VIIRS-ANC-Tropo-Geopot-Ht-Mod-Gran	•None	Grid Gran	Cloud Physical Properties	ProAncViirsGranulateTropoGeopotentialHeight	ProEdrViirsCOp
123	•VIIRS_Gran_TerrainHgt	•VIIRS-ANC-Surf-Ht-Mod-Gran	•None	Grid Gran	Cloud Physical Properties	ProAncViirsGranulateTerrainGeopotentialHeight	ProEdrViirsCOp
124	•VIIRS_Gran_SkinTemp	•VIIRS-ANC-Temp-Skin-Mod-Gran	•None	Grid Gran	Cloud Physical Properties	ProAncViirsGranulateSkinTemp	ProEdrViirsCOp
125	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Cloud Physical Properties	ProAncViirsGranulateSurfPres	ProEdrViirsCOp
126	•VIIRS_Gran_PresLevelTemp •VIIRS_Gran_WaterVaporMixRatio	•VIIRS-ANC-Iso-Lev-Temp-Mod-Gran •VIIRS-ANC-Wtr-Vpr-Mix-Ratio-Lev-Mod-Gran	•None •None	Grid Gran	Cloud Physical Properties	ProAncViirsPerformSurfPresCorrection	ProEdrViirsCOp
127	•VIIRS_Gran_GeopotentialHeight	•VIIRS-ANC-Geopot-Ht-Press-Lev-Mod-Gran	•None	Grid Gran	Cloud Physical Properties	ProAncViirsGranulateGeopotentialHeight	ProEdrViirsCOp
128	•VIIRS_Gran_SpecSurfHumidity	•VIIRS-ANC-Sp-Humd-Surf-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateSpecSurfHumidity	ProEdrViirsIceAge

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
129	•VIIRS_Gran_WindSpd	•VIIRS-ANC-Wind-Speed-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateWindSpeed	ProEdrViirsIceAge
130	•VIIRS_Gran_SurfTemp	•VIIRS-ANC-Temp-Surf2M-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateSurfTemp	ProEdrViirsIceAge
131	•VIIRS_Gran_PW	•VIIRS-ANC-Preci-Wtr-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulatePrecipWater	ProEdrViirsIceAge
132	•VIIRS_Gran_Ozone	•VIIRS-ANC-Tot-Col-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateOzone	ProEdrViirsIceAge
133	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateSurfPres	ProEdrViirsIceAge
134	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateOpticalDepth	ProEdrViirsIceAge
135	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateOpticalDepth	ProEdrViirsIceQual
136	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Cryosphere	ProAncViirsGranulateOpticalDepth	ProEdrViirsIceSurfTemp
137	•GIP_LSA_GRAN	•VIIRS-GridIP-VIIRS-Land-Surf-Albedo-Mod-Gran	•None	Grid Gran	Surface Albedo	ProGipViirsGridToGranLandSurfAlbedo	ProEdrViirsLandSurfAlbedo
138	•VIIRS_Gran_Ozone	•VIIRS-ANC-Tot-Col-Mod-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateOzone	ProEdrViirsLandSurfAlbedo
139	•VIIRS_Gran_PW	•VIIRS-ANC-Preci-Wtr-Mod-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulatePrecipWater	ProEdrViirsLandSurfAlbedo
140	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateOpticalDepth	ProEdrViirsLandSurfAlbedo

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
141	•GIP_QST_GRAN	•VIIRS-GridIP-VIIRS-Qst-Mod-Gran	•None	Grid Gran	Land Surface Temperature	ProGipViirsGridToGranQst	ProEdrViirsLst
142	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Land Surface Temperature	ProAncViirsGranulateOpticalDepth	ProEdrViirsLst
143	•DayNight_Band •GridRowCol_DNB •Geolocation_DNB_DEG	•VIIRS-DNB-SDR •VIIRS-DNB-GRC •VIIRS-DNB-GEO	•SDRE-VDNB-C0030 •None •None	Store/Retrieve (VIIRS SDR)	VIIRS Imagery	Retrieve Products	ProEdrViirsNc lImagery
144	•VIIRS_Gran_WindSpd	•VIIRS-ANC-Wind-Speed-Mod-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateWindSpeed	ProEdrViirsN HF
145	•VIIRS_Gran_NhfWaterVaporMixRatio	•VIIRS-ANC-Wtr-Vpr-Mix-Ratio-Lev-Nhf-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateNhfWaterVaporMixRatio	ProEdrViirsN HF
146	•VIIRS_Gran_NhfSurfTemp	•VIIRS-ANC-Temp-Surf2M-Nhf-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateNhfSurfTemp	ProEdrViirsN HF
147	•VIIRS_Gran_NhfSurfPres	•VIIRS-ANC-Press-Surf-Nhf-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateNhfSurfPres	ProEdrViirsN HF
148	•VIIRS_Gran_NhfOzone	•VIIRS-ANC-Tot-Col-Nhf-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateNhfOzone	ProEdrViirsN HF
149	•VIIRS_Gran_NhfSpecSurfHumidity	•VIIRS-ANC-Sp-Humd-Surf-Nhf-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateNhfSpecSurfHumidity	ProEdrViirsN HF
150	•VIIRS_Gran_NhfPresLevelTemp	•VIIRS-ANC-Iso-Lev-Temp-Nhf-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateNhfPresLevelTemp	ProEdrViirsN HF
151	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Surface Albedo	ProAncViirsGranulateOpticalDepth	ProEdrViirsN HF

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
152	•VIIRS_Gran_NDT	•VIIRS-ANC-Nitr-Depl-Temp-Mod-Gran	•None	Grid Gran	Ocean Color and Chlorophyll	ProAncViirsGranulateNitrateDepletion	ProEdrViirsOCC
153	•VIIRS_Gran_Bathymetry	•VIIRS-ANC-Dig-Bath-Data-Mod-Gran	•None	Grid Gran	Ocean Color and Chlorophyll	ProAncViirsGranulateBathymetry	ProEdrViirsOCC
154	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Ocean Color and Chlorophyll	ProAncViirsGranulateSurfPres	ProEdrViirsOCC
155	•VIIRS_Gran_Ozone	•VIIRS-ANC-Tot-Col-Mod-Gran	•None	Grid Gran	Ocean Color and Chlorophyll	ProAncViirsGranulateOzone	ProEdrViirsOCC
156	•VIIRS_Gran_WindSpd	•VIIRS-ANC-Wind-Speed-Mod-Gran	•None	Grid Gran	Ocean Color and Chlorophyll	ProAncViirsGranulateWindSpeed	ProEdrViirsOCC
157	•VIIRS_Gran_WindDir	•VIIRS-ANC-Wind-Direction-Mod-Gran	•None	Grid Gran	Ocean Color and Chlorophyll	ProAncViirsGranulateWindDirection	ProEdrViirsOCC
158	•VIIRS_Gran_PW	•VIIRS-ANC-Preci-Wtr-Mod-Gran	•None	Grid Gran	Ocean Color and Chlorophyll	ProAncViirsGranulatePrecipWater	ProEdrViirsOCC
159	•VIIRS_Gran_SkinTemp	•VIIRS-ANC-Temp-Skin-Mod-Gran	•None	Grid Gran	Sea Surface Temperature	ProAncViirsGranulateSkinTemp	ProEdrViirsSst
160	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Sea Surface Temperature	ProAncViirsGranulateOpticalDepth	ProEdrViirsSst
161	•VIIRS_Gran_Ozone	•VIIRS-ANC-Tot-Col-Mod-Gran	•None	Grid Gran	Surface Reflectance	ProAncViirsGranulateOzone	ProEdrViirsSurfReflect
162	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Surface Reflectance	ProAncViirsGranulateSurfPres	ProEdrViirsSurfReflect
163	•VIIRS_Gran_PW	•VIIRS-ANC-Preci-Wtr-Mod-Gran	•None	Grid Gran	Surface Reflectance	ProAncViirsGranulatePrecipWater	ProEdrViirsSurfReflect

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
164	•VIIRS_Gran_Optical_Dept h	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Surface Reflectance	ProAncViirsGr anulateOptical Depth	ProEdrViirsSu rfReflect
165	•GIP_AMMNDVI_GRAN	•VIIRS-GridIP-VIIRS-Ann-Max-Min-Ndvi-Mod-Gran	•None	Grid Gran	Surface Type	ProGipViirsGr idToGranMax MinNdvi	ProEdrViirsSu rfType
166	•GIP_QST_GRAN	•VIIRS-GridIP-VIIRS-Qst-Mod-Gran	•None	Grid Gran	Surface Type	ProGipViirsGr idToGranQst	ProEdrViirsSu rfType
167	•GIP_SIC_GRAN	•VIIRS-GridIP-VIIRS-Snow-Ice-Cover-Mod-Gran	•IMPI_VSIC_R010	Grid Gran	Surface Type	ProGipViirsGr idToGranSnow IceCover	ProEdrViirsSu rfType
168	•GIP_GMASI_SNOW_TILE	•GridIP-GMASI-Snow-Ice-Cover-Tile	•IMPI_VGGC_R0100	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProGipAncTo GridGMASI
169	•NOAA_GMASI_SnowIce_North •NOAA_GMASI_SnowIce_South	•NOAA-AUTOSNOW-NH-ANC-Int •NOAA-AUTOSNOW-SH-ANC-Int	•AN_NP-L10400-001 •AN_NP-L10400-002	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProGipAncTo GridGMASI
170	•GIP_QST_TILE	•GridIP-VIIRS-Qst-Quarterly-Tile	•IMPI_QSIP_R0010	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipCrisGridToGranLand Fraction
171	•VIIRS_CTP_IP	•VIIRS-Cd-Top-Parm-IP	•IMPI_VCTP_R0100	Cloud Physical Properties	Grid Gran	ProEdrViirsCtp	ProGipCSGran ToGridViirsCloudTopPres
172	•AreaWeight_Mod_Grid	•VIIRS-Gran-To-Grid-GridIP-AW-GRID-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW CalcGrid	ProGipCSGran ToGridViirsCloudTopPres
173	•VIIRS_IST_EDR	•VIIRS-IST-EDR	•EDRE-ICST-C1030	Cryosphere	Grid Gran	ProEdrViirsIce SurfTemp	ProGipCSGran ToGridViirsSnowIce
174	•AreaWeight_Mod_Grid	•VIIRS-Gran-To-Grid-GridIP-AW-GRID-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW CalcGrid	ProGipCSGran ToGridViirsSnowIce
175	•VIIRS_SCD_BINARY_SN OW_FRAC_EDR	•VIIRS-SCD-BINARY-SNOW-FRAC-EDR	•EDRE-SNCD-C1030	Snow Cover	Grid Gran	ProEdrViirsSnow	ProGipCSGran ToGridViirsSnowIce

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
176	•OMPS_TC_Gran_CloudTo pPres	•OMPS-TC-ANC-Cd- Top-Pres-Gran	•None	Grid Gran	Grid Gran	ProAncOmpsT cGranulateClo udTopPres	ProGipCSomp sTcGridToGra nCloudTopPar ms
177	•OMPS_TC_CS_VIIRS_CL OUD_TOP_PRES_TILE	•OMPS-TC-CS-VIIRS- Cloud-Top-Pres-Tile	•None	Grid Gran	Grid Gran	ProGipCSGran ToGridViirsCl oudTopPres	ProGipCSomp sTcGridToGra nCloudTopPar ms
178	•OMPS_TC_Mapping_Gran	•OMPS-TC-Grid-To- Gran-GridIP-Mapping- IP	•None	Store/Retrieve (OMPS TC SDR)	Grid Gran	Retrieve Products	ProGipCSomp sTcGridToGra nCloudTopPar ms
179	•OMPS_TC_CS_VIIRS_SN OW_ICE_TILE	•OMPS-TC-CS-VIIRS- Snow-Ice-Tile	•None	Grid Gran	Grid Gran	ProGipCSGran ToGridViirsSn owIce	ProGipCSomp sTcGridToGra nSnowIce
180	•OMPS_TC_Mapping_Gran •OMPS_TC_GIP_SNOW_I CE_FRACTION_GRAN	•OMPS-TC-Grid-To- Gran-GridIP-Mapping- IP •OMPS-TC-GridIP- VIIRS-Snow-Ice- Fraction-Gran	•None •None	Store/Retrieve (OMPS TC SDR)	Grid Gran	Retrieve Products	ProGipCSomp sTcGridToGra nSnowIce
181	•GIP_SIN_TILES_EARTH _LAND_LUT	•VIIRS-Grid-SIN-Tiles- Earth-Land-LUT	•NP_NU-LM0233- 074	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGr anToGridDSR
182	•GIP_MLI_TILE	•GridIP-VIIRS-MLI- Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGr anToGridDSR
183	•AreaWeight_Mod_Grid	•VIIRS-Gran-To-Grid- GridIP-AW-GRID- Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW CalcGrid	ProGipViirsGr anToGridDSR
184	•VIIRS_SCD_BINARY_SN OW_MAP_EDR	•VIIRS-SCD-BINARY- SNOW-MAP-EDR	•EDRE-SNCD- C1035	Snow Cover	Grid Gran	ProEdrViirsSn ow	ProGipViirsGr anToGridDSR
185	•Geolocation_Mod_TC	•VIIRS-MOD-RGEO- TC	•None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProGipViirsGr anToGridDSR
186	•SurfReflect_IP	•VIIRS-Surf-Refl-IP	•IMPI_VISR_R010 0	Surface Reflectance	Grid Gran	ProEdrViirsSu rfReflect	ProGipViirsGr anToGridDSR

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
187	•GIP_DSR_TEMPLATE_TILE	•GridIP-VIIRS-Daily-Surf-Refl-Template-Daily-Tile	•None	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGranToGridDSR ProGipViirsGridToGridDSRInit
188	•GIP_SIN_TILES_EARTH_LAND_LUT	•VIIRS-Grid-SIN-Tiles-Earth-Land-LUT	•NP_NU-LM0233-074	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGranToGridMontlySRBTVI
189	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGranToGridMontlySRBTVI
190	•AreaWeight_Mod_Grid	•VIIRS-Gran-To-Grid-GridIP-AW-GRID-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsWCalcGrid	ProGipViirsGranToGridMontlySRBTVI
191	•GIP_MONTHLY_SRBTVI_TILE	•GridIP-VIIRS-Mth-SR-BT-VI-Monthly-Tile	•None	Grid Gran	Grid Gran	ProGipViirsGridToGridMontlyInit	ProGipViirsGranToGridMontlySRBTVI
192	•Moderate_Band13 •Geolocation_Mod_TC •Moderate_Band14 •Moderate_Band15 •Moderate_Band12 •Moderate_Band16	•VIIRS-M13-SDR •VIIRS-MOD-RGEO-TC •VIIRS-M14-SDR •VIIRS-M15-SDR •VIIRS-M12-SDR •VIIRS-M16-SDR	•SDRE-VM13-C0030 •None •SDRE-VM14-C0030 •SDRE-VM15-C0030 •SDRE-VM12-C0030 •SDRE-VM16-C0030	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProGipViirsGranToGridMontlySRBTVI
193	•SurfReflect_IP	•VIIRS-Surf-Refl-IP	•IMPI_VISR_R0100	Surface Reflectance	Grid Gran	ProEdrViirsSurfReflect	ProGipViirsGranToGridMontlySRBTVI
194	•GIP_SIC_GRANGRID_COEFS	•VIIRS-GranToGrid-Snow-Ice-Cover-AC	•None	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGranToGridSnowIceCover

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
195	•IceConcen_IP	•VIIRS-I-Conc-IP	•IMPI_VIIC_R0100	Cryosphere	Grid Gran	ProEdrViirsIce Conc	ProGipViirsGranToGridSnowIceCover
196	•NearestNeighbor_Img	•VIIRS-GridIP-NN-Img-IP	•None	Grid Gran	Grid Gran	ProGipViirsNNImg	ProGipViirsGranToGridSnowIceCover
197	•VIIRS_SCD_BINARY_SNOW_MAP_EDR	•VIIRS-SCD-BINARY-SNOW-MAP-EDR	•EDRE-SNCD-C1035	Snow Cover	Grid Gran	ProEdrViirsSnow	ProGipViirsGranToGridSnowIceCover
198	•GIP_SIC_TILE	•GridIP-VIIRS-Snow-Ice-Cover-Rolling-Tile	•IMPI_VGSC_R0100	Store/Retrieve (Grid Gran)	Grid Gran	Retrieve Products	ProGipViirsGranToGridSnowIceCover
199	•GMASI_SIC_TILE	•GridIP-GMASI-Snow-Ice-Cover-Tile	•IMPI_VGGC_R0100	Anc and Aux Data	Grid Gran	Dynamic Ancillary Data	ProGipViirsGranToGridSnowIceCover
200	•GIP_SIN_TILES_EARTH_LAND_LUT	•VIIRS-Grid-SIN-Tiles-Earth-Land-LUT	•NP_NU-LM0233-074	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGridToGranLandSurfAlbedo
201	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGranLandSurfAlbedo
202	•AreaWeight_Mod_Gran	•VIIRS-Grid-To-Gran-GridIP-AW-SWATH-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsWCalcGran	ProGipViirsGridToGranLandSurfAlbedo
203	•GIP_LSA_17DAY_TILE	•GridIP-VIIRS-Land-Surf-Albedo-17Day-Tile	•IMPI_VGLA_R0100	Grid Gran	Grid Gran	ProGipViirsGridToGridLSA	ProGipViirsGridToGranLandSurfAlbedo
204	•Geolocation_Mod_TC	•VIIRS-MOD-RGEO-TC	•None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProGipViirsGridToGranLandSurfAlbedo
205	•GIP_AMMNDVI_TILE •GIP_SIN_TILES_EARTH_LAND_LUT	•GridIP-VIIRS-Ann-Max-Min-Ndvi-Quarterly-Tile •VIIRS-Grid-SIN-Tiles-Earth-Land-LUT	•IMPI_AMMN_R010 •NP_NU-LM0233-074	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGridToGranMaxMinNdvi

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
206	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGranMaxMinNdvi
207	•AreaWeight_Mod_Gran	•VIIRS-Grid-To-Gran-GridIP-AW-SWATH-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW_CalcGran	ProGipViirsGridToGranMaxMinNdvi
208	•GIP_SIN_TILES_EARTH_LAND_LUT	•VIIRS-Grid-SIN-Tiles-Earth-Land-LUT	•NP_NU-LM0233-074	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGridToGranNbarNdvi
209	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGranNbarNdvi
210	•AreaWeight_Mod_Gran	•VIIRS-Grid-To-Gran-GridIP-AW-SWATH-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW_CalcGran	ProGipViirsGridToGranNbarNdvi
211	•GIP_NBAR_NDVI_ROLLING_TILE	•GridIP-VIIRS-Nbar-Ndvi-Rolling-Tile	•IMPI_VGNN_R0100	Grid Gran	Grid Gran	ProGipViirsGridToGridRollingNbarNdvi	ProGipViirsGridToGranNbarNdvi
212	•GIP_QST_TILE	•GridIP-VIIRS-Qst-Quarterly-Tile	•IMPI_QSIP_R0010	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGridToGranQst
213	•AreaWeight_Mod_Gran	•VIIRS-Grid-To-Gran-GridIP-AW-SWATH-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW_CalcGran	ProGipViirsGridToGranQst
214	•GIP_QSTLWM_TILE	•GridIP-VIIRS-Qst-Lwm-Quarterly-Tile	•IMPI_QLMN_R0010	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGridToGranQstLwm
215	•AreaWeight_Mod_Gran	•VIIRS-Grid-To-Gran-GridIP-AW-SWATH-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW_CalcGran	ProGipViirsGridToGranQstLwm
216	•AreaWeight_Mod_Gran	•VIIRS-Grid-To-Gran-GridIP-AW-SWATH-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW_CalcGran	ProGipViirsGridToGranSnowIceCover

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
217	•GIP_SIC_TILE •Moderate_Band01	•GridIP-VIIRS-Snow-Ice-Cover-Rolling-Tile •VIIRS-M1-SDR	•IMPI_VGSC_R0100 •SDRE-VM01-C0030	Store/Retrieve (VIIRS SDR and INF)	Grid Gran	Retrieve Products	ProGipViirsGridToGranSnowIceCover
218	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGrid17DayNbarNdvi
219	•GIP_BRDF_ARCH_17DAY_TILE •GIP_LSA_17DAY_TILE	•GridIP-VIIRS-Brdf-Arch-17Day-Tile •GridIP-VIIRS-Land-Surf-Albedo-17Day-Tile	•None •IMPI_VGLA_R0100	Store/Retrieve	Grid Gran	Retrieve Products	ProGipViirsGridToGrid17DayNbarNdvi
220	•GIP_NBAR_NDVI_17DAY_TILE	•GridIP-VIIRS-Nbar-Ndvi-17Day-Tile	•None	Store/Retrieve	Grid Gran	Retrieve Products	ProGipViirsGridToGrid17DayNbarNdvi
221	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGridDSRInit
222	•VIIRS-LSA-KERNEL-ALBEDO-LUT •GIP_LSA_COEFFS	•VIIRS-LSA-KERNEL-ALBEDO-LUT •VIIRS-GridToGrid-LSA-AC	•NP_NU-LM0233-019 •DP_NU-LM2020-019	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGridToGridLSA
223	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGridLSA
224	•GIP_BRDF_ARCH_17DAY_TILE	•GridIP-VIIRS-Brdf-Arch-17Day-Tile	•None	Store/Retrieve	Grid Gran	Retrieve Products	ProGipViirsGridToGridLSA
225	•GIP_LSA_17DAY_TILE	•GridIP-VIIRS-Land-Surf-Albedo-17Day-Tile	•IMPI_VGLA_R0100	Store/Retrieve	Grid Gran	Retrieve Products	ProGipViirsGridToGridLSA
226	•GIP_DSR_TILE	•GridIP-VIIRS-Daily-Surf-Refl-Daily-Tile	•None	Grid Gran	Grid Gran	ProGipViirsGridToGridDSR ProGipViirsGridToGridDSRInit	ProGipViirsGridToGridLSA ProGipViirsGridToGridDSR

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
227	•GIP_MONTHLY_TEMPLATE_TILE	•GridIP-VIIRS-Mth-SR-BT-VI-Template-Monthly-Tile	•None	Anc and Aux Data	Grid Gran	Auxiliary Data - Spacecraft Data and LUTs	ProGipViirsGridToGridMonthlyInit
228	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGridMonthlyInit
229	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGridMonthlyNbarNdvi
230	•GIP_NBAR_NDVI_17DAY_TILE	•GridIP-VIIRS-Nbar-Ndvi-17Day-Tile	•None	Store/Retrieve	Grid Gran	Retrieve Products	ProGipViirsGridToGridMonthlyNbarNdvi
231	•GIP_NBAR_NDVI_MONTHLY_TILE	•GridIP-VIIRS-Nbar-Ndvi-Monthly-Tile	•None	Store/Retrieve (Grid Gran)	Grid Gran	Retrieve Products	ProGipViirsGridToGridMonthlyNbarNdvi
232	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGridMonthlyPostComp
233	•GIP_MONTHLY_SRBTVI_TILE	•GridIP-VIIRS-Mth-SR-BT-VI-Monthly-Tile	•None	Grid Gran	Grid Gran	ProGipViirsGridToGridMonthlySRBTVI	ProGipViirsGridToGridMonthlyPostComp
234	•GIP_MONTHLY_SRBTVI_FINAL_TILE	•GridIP-VIIRS-Mth-SR-BT-VI-Monthly-Final-Tile	•IMPI_VTRF_R0100	Grid Gran	Grid Gran	Retrieve Products	ProGipViirsGridToGridMonthlyPostComp
235	•GIP_MLI_TILE	•GridIP-VIIRS-MLI-Tile	•None	Anc and Aux Data	Grid Gran	Static Ancillary Data	ProGipViirsGridToGridRollingNbarNdvi
236	•GIP_NBAR_NDVI_ROLLING_TILE •GIP_NBAR_NDVI_17DAY_TILE	•GridIP-VIIRS-Nbar-Ndvi-Rolling-Tile •GridIP-VIIRS-Nbar-Ndvi-17Day-Tile	•IMPI_VGNN_R0100 •None	Store/Retrieve	Grid Gran	Retrieve Products	ProGipViirsGridToGridRollingNbarNdvi
237	•GIP_NBAR_NDVI_MONTHLY_TILE	•GridIP-VIIRS-Nbar-Ndvi-Monthly-Tile	•None	Store/Retrieve	Grid Gran	Retrieve Products	ProGipViirsGridToGridRollingNbarNdvi

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
238	•Geolocation_Img_TC	•VIIRS-IMG-RGEO-TC	•None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProGipViirsN NImg
239	•Geolocation_Mod_TC	•VIIRS-MOD-RGEO-TC	•None	Store/Retrieve (VIIRS SDR)	Grid Gran	Retrieve Products	ProGipViirsW CalcGran
240	•AreaWeight_Mod_Gran	•VIIRS-Grid-To-Gran-GridIP-AW-SWATH-Mod-IP	•None	Grid Gran	Grid Gran	ProGipViirsW CalcGran	ProGipViirsW CalcGrid
241	•GridRowCol_Mod	•VIIRS-MOD-GRC	•None	VIIRS RDR/SDR	VIIRS RDR/SDR	ProSdrViirsGeoExtender	ProSdrViirsBrightPixel
242	•GIP_SIC_TILE	•GridIP-VIIRS-Snow-Ice-Cover-Rolling-Tile	•IMPI_VGSC_R0100	Grid Gran	Store/Retrieve	ProGipViirsGranToGridSnowIceCover	Store Products to DMS
243	•GIP_MONTHLY_SRBTVI_FINAL_TILE	•GridIP-VIIRS-Mth-SR-BT-VI-Monthly-Final-Tile	•IMPI_VTRF_R0100	Grid Gran	Store/Retrieve	ProGipViirsGridToGridMonthlyPostComp	Store Products to DMS
244	•GIP_LSA_17DAY_TILE	•GridIP-VIIRS-Land-Surf-Albedo-17Day-Tile	•IMPI_VGLA_R0100	Grid Gran	Store/Retrieve	ProGipViirsGridToGridLSA	Store Products to DMS
245	•GIP_BRDF_ARCH_17DAY_TILE	•GridIP-VIIRS-Brdf-Arch-17Day-Tile	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGridLSA	Store Products to DMS
246	•GIP_NBAR_NDVI_17DAY_TILE	•GridIP-VIIRS-Nbar-Ndvi-17Day-Tile	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGrid17DayNbarNdvi	Store Products to DMS
247	•GIP_NBAR_NDVI_MONTHLY_TILE	•GridIP-VIIRS-Nbar-Ndvi-Monthly-Tile	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGridMonthlyNbarNdvi	Store Products to DMS
248	•GIP_NBAR_NDVI_ROLLING_TILE	•GridIP-VIIRS-Nbar-Ndvi-Rolling-Tile	•IMPI_VGNN_R0100	Grid Gran	Store/Retrieve	ProGipViirsGridToGridRollingNbarNdvi	Store Products to DMS
249	•GIP_QST_GRAN	•VIIRS-GridIP-VIIRS-Qst-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGranQst	Store Products to DMS
250	•GIP_SIC_GRAN	•VIIRS-GridIP-VIIRS-Snow-Ice-Cover-Mod-Gran	•IMPI_VSIC_R0100	Grid Gran	Store/Retrieve	ProGipViirsGridToGranSnowIceCover	Store Products to DMS

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
251	•GIP_AMMNDVI_GRAN	•VIIRS-GridIP-VIIRS-Ann-Max-Min-Ndvi-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGranMaxMinNdvi	Store Products to DMS
252	•GIP_NBAR_NDVI_GRA N	•VIIRS-GridIP-VIIRS-Nbar-Ndvi-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGranNbarNdvi	Store Products to DMS
253	•GIP_QSTLWM_GRAN	•VIIRS-GridIP-VIIRS-Qst-Lwm-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGranQstLwm	Store Products to DMS
254	•VIIRS_Gran_Geopotential Height	•VIIRS-ANC-Geopot-Ht-Press-Lev-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateGeopotentialHeight	Store Products to DMS
255	•VIIRS_Gran_PresLevelTemp •VIIRS_Gran_WaterVaporMixRatio	•VIIRS-ANC-Iso-Lev-Temp-Mod-Gran •VIIRS-ANC-Wtr-Vpr-Mix-Ratio-Lev-Mod-Gran	•None •None	Grid Gran	Store/Retrieve	ProAncViirsPerformSurfPresCorrection	Store Products to DMS
256	•VIIRS_Gran_SkinTemp	•VIIRS-ANC-Temp-Skin-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateSkinTemp	Store Products to DMS
257	•VIIRS_Gran_NDT	•VIIRS-ANC-Nitr-Depl-Temp-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateNitrateDepletion	Store Products to DMS
258	•VIIRS_Gran_TropoGeopotentialHeight	•VIIRS-ANC-Tropo-Geopot-Ht-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateTropoGeopotentialHeight	Store Products to DMS
259	•VIIRS_Gran_Bathymetry	•VIIRS-ANC-Dig-Bath-Data-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateBathymetry	Store Products to DMS
260	•VIIRS_Gran_SurfPres	•VIIRS-ANC-Press-Surf-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateSurfPres	Store Products to DMS

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
261	•VIIRS_Gran_SpecSurfHumidity	•VIIRS-ANC-Sp-Humd-Surf-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateSpecSurfHumidity	Store Products to DMS
262	•VIIRS_Gran_SurfGeopotentialHeight	•VIIRS-ANC-Geopot-Ht-Lev-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateSurfGeopotentialHeight	Store Products to DMS
263	•VIIRS_Gran_Ozone	•VIIRS-ANC-Tot-Col-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateOzone	Store Products to DMS
264	•VIIRS_Gran_Optical_Depth	•VIIRS-ANC-Optical-Depth-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateOpticalDepth	Store Products to DMS
265	•VIIRS_Gran_WindDir	•VIIRS-ANC-Wind-Direction-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateWindDirection	Store Products to DMS
266	•VIIRS_Gran_WindSpd	•VIIRS-ANC-Wind-Speed-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateWindSpeed	Store Products to DMS
267	•VIIRS_Gran_PW	•VIIRS-ANC-Preci-Wtr-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulatePrecipWater	Store Products to DMS
268	•VIIRS_Gran_SurfTemp	•VIIRS-ANC-Temp-Surf2M-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProAncViirsGranulateSurfTemp	Store Products to DMS
269	•OMPS_TC_Gran_UVSurfReflect	•OMPS-TC-ANC-UV-Surf-Reflect-Gran	•None	Grid Gran	Store/Retrieve	ProAncOmpsTcGranulateUVSurfReflect	Store Products to DMS
270	•OMPS_TC_Gran_CloudTopPres	•OMPS-TC-ANC-Cd-Top-Pres-Gran	•None	Grid Gran	Store/Retrieve	ProAncOmpsTcGranulateCloudTopPres	Store Products to DMS
271	•GIP_LSA_GRAN	•VIIRS-GridIP-VIIRS-Land-Surf-Albedo-Mod-Gran	•None	Grid Gran	Store/Retrieve	ProGipViirsGridToGranLandSurfAlbedo	Store Products to Heap
272	•GIP_GMASI_SNOW_TILE	•GridIP-GMASI-Snow-Ice-Cover-Tile	•IMPI_VGGC_R0100	Grid Gran	Store Products	ProGipAncToGridGMASI	Store Products to Heap

	Data Product Name	Collection Short Name	Mnemonic	Sending SRS	Receiving SRS	Sending Function	Receiving Function
273	•OMPS_TC_CS_GRIDIP_VIIRS_CLOUD_TOP_PRES_GRAN •OMPS_TC_CS_GRIDIP_VIIRS_CLOUD_FRAC_GRAN	•OMPS-TC-CS-GridIP-VIIRS-Cloud-Top-Pres-Gran •OMPS-TC-CS-GridIP-VIIRS-Cloud-Frac-Gran	•None •None	Grid Gran	Store Products	ProGipCSOpsTcGridToGranCloudTopParams	Store Products to Heap
274	•OMPS_TC_CS_GRIDIP_VIIRS_SNOW_ICE_GRAN	•OMPS-TC-CS-GridIP-VIIRS-Snow-Ice-Gran	•None	Grid Gran	Store Products	ProGipCSOpsTcGridToGranSnowIce	Store Products to Heap
275	•OMPS_TC_CS_VIIRS_CLOUD_TOP_PRES_TILE	•OMPS-TC-CS-VIIRS-Cloud-Top-Pres-Tile	•None	Grid Gran	Store Products	ProGipCSGranToGridViirsCloudTopPres	Store Products to Heap
276	•OMPS_TC_CS_VIIRS_SNOW_ICE_TILE	•OMPS-TC-CS-VIIRS-Snow-Ice-Tile	•None	Grid Gran	Store Products	ProGipCSGranToGridViirsSnowIce	Store Products to Heap

3.3.2 Outputs

SRS.01.07_170 The Grid-to-Grid software shall generate the VIIRS Land Surface Albedo 17-day Tile in conformance with the XML format file in Attachment A.1 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: The product profile must conform to the XML format file.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_171 The Grid-to-Grid software shall generate the VIIRS NBAR NDVI Rolling Tile Gridded IP in conformance with the XML format file in Attachment A.2 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: The product profile must conform to the XML format file.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_172 The Gran-to-Grid software shall generate the VIIRS Snow/Ice Cover Rolling Tile Gridded IP in conformance with the XML format file in Attachment A.5 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: The product profile must conform to the XML format file.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_173 The Grid-to-Gran software shall generate the VIIRS Snow/Ice Cover 750m IP in conformance with the XML format file in Attachment A.6 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: The product profile must conform to the XML format file.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_174 The Grid-to-Grid software shall generate the VIIRS Surface Reflectance, Brightness Temperatures, & Vegetation Index Monthly Final gridded IP in conformance with the XML format file in Attachment A.7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).

Rationale: The product profile must conform to the XML format file. Note that this product is for the final tile.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.4 Science Standards

Not applicable.

3.5 Metadata Output

Not applicable.

3.6 Quality Flag Content Requirements

SRS.01.07_145 The VIIRS Land Surface Albedo 17-day Tile software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <LSA_GridIP><QF>.

Rationale: Quality Flags must be generated based on the established flag conditions, logic, and format.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.7 Data Quality Notification Requirements

Not applicable.

3.8 Adaptation

Not applicable.

3.9 Provenance Requirements

Not applicable.

3.10 Computer Software Requirements

Not applicable.

3.11 Software Quality Characteristics

Not applicable.

3.12 Design and Implementation Constraints

SRS.01.07_159 The JPSS Common Ground System shall execute the Gran to Grid algorithms.

Rationale: The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_969 The JPSS Common Ground System shall execute the Grid to Grid algorithms.

Rationale: The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_970 The JPSS Common Ground System shall execute the Grid to Gran algorithms.

Rationale: The CGS must incorporate algorithm changes that are supplied by the algorithm vendor. The CGS is responsible for Grid-To-Gran algorithms producing Snow/Ice Cover, QST, LSA, and NBAR NDVI Gran IPs.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

SRS.01.07_163 The JPSS Common Ground System shall execute a computing algorithm for granulating the VIIRS Snow/Ice Cover 750m granulated IP.

Rationale: The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

Mission Effectivity: S-NPP, JPSS-1, JPSS-2

3.13 Personnel Related Requirements

Not applicable.

3.14 Training Requirements

Not applicable.

3.15 Logistics Related requirements

Not applicable.

3.16 Other Requirements

Not applicable.

3.17 Packaging Requirements

Not applicable.

3.18 Precedence and Criticality

Not applicable.

Appendix A. Requirements Attributes

The Requirements Attributes Table lists each requirement with CM-controlled attributes including requirement type, mission effectiveness, requirement allocation(s), block start and end, method(s) for verifying each requirement, etc.

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
SRS.01.07_161	The Grid-to-Grid software shall incorporate a computing algorithm provided for data reduction and gridding of the VIIRS NBAR NDVI Rolling Tile gridded IP.	Ap	Grid IP	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA
SRS.01.07_162	The Gran-to-Grid software shall incorporate a computing algorithm provided for gridding of a merged VIIRS Snow Cover Binary Map EDR and Sea Ice Concentration IP with a gridded Global Multisensor Automated Snow/Ice (GMASI) Map into a Snow/Ice Cover Rolling Tile gridded IP.	Ap	Grid IP	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA
SRS.01.07_164	The Grid-to-Grid software shall incorporate a computing algorithm provided for gridding and post-compositing the SR-BT-VI Monthly Final Tile gridded IP.	Ap	Grid IP	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA
SRS.01.07_168	The Grid-to-Grid software shall incorporate a computing algorithm provided for albedo and gridding of the VIIRS Land Surface Albedo 17-day Tile gridded IP.	Ap	Grid IP	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA
SRS.01.07_991	The Grid-to-Grid software shall incorporate a computing algorithm provided for data reduction and gridding of NBAR-NDVI-Monthly	Ap	Grid IP	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
	and NBAR-NDVI-17-day Tile gridded IPs.								
SRS.01.07_992	The Grid-to-Grid software shall incorporate a computing algorithm provided for albedo and gridding of BRDF Archetypal 17-day Tile gridded IP.	Ap	Grid IP	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA
SRS.01.07_178	The ANC-to-Grid software shall reformat the NOAA Global Multi-sensor Automated Snow Ice Cover (GMASI) to a Snow/Ice Cover Rolling Tile gridded IP format.	Ap	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_181	The granulation software shall granulate time interpolated versions of the NCEP GFS forecasts to a VIIRS granulation.	Ap	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_963	The granulation software shall regranulate time interpolated versions of the NCEP GFS forecasts to an OMPS granulation.	Ap	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_182	The granulation software shall granulate time interpolated versions of the NAAPS Total Optical Depth forecast to a VIIRS granulation.	Ap	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_965	The granulation software shall granulate time interpolated versions of the NAVGEM forecasts to an OMPS granulation.	Ap	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_966	The granulation software shall regranulate select VIIRS products to an OMPS granulation.	Ap	IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
SRS.01.07_183	The granulation software shall granulate time interpolated versions of the NAVGEM forecasts to a VIIRS granulation.	Ap	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_974	The VIIRS Snow/Ice Cover Gran IP software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <SnowIceCover_GranIP><fill>.	E	IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_975	The VIIRS Gridded Snow/Ice Cover Rolling Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <SnowIceCover_GridIP><fill>.	E	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_976	The VIIRS SR-BT-VI Monthly Final Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <MonthBT-SR-VI_GridIP><fill>.	E	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
SRS.01.07_977	The VIIRS Land Surface Albedo 17-day Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <LSA_GridIP><fill>.	E	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_978	The VIIRS NBAR NDVI Rolling Tile software shall set <FillField> to <FieldValue> according to <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <Roll-NBAR-NDVI_GridIP><fill>.	E	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_962	The gridding and granulation software shall incorporate inputs as specified in Table 3-1.	I	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_986	The Gran-To-Grid software shall ingest tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	Ft	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_993	The Grid-To-Grid software shall ingest tables and coefficients formatted in accordance with	Ft	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
	Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).								
SRS.01.07_987	The VIIRS Snow/Ice Cover IP software shall ingest tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	Ft	IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_989	The Gran-To-Grid software shall ingest ancillary data formatted in accordance with Section 6 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	Fa	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_994	The Grid-To-Grid software shall ingest ancillary data formatted in accordance with Section 6 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	Fa	ANC	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_170	The Grid-to-Grid software shall generate the VIIRS Land Surface Albedo 17-day Tile in conformance with the XML format file in Attachment A.1 of the JPSS	F	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
	Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).								
SRS.01.07_171	The Grid-to-Grid software shall generate the VIIRS NBAR NDVI Rolling Tile Gridded IP in conformance with the XML format file in Attachment A.2 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	F	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_172	The Gran-to-Grid software shall generate the VIIRS Snow/Ice Cover Rolling Tile Gridded IP in conformance with the XML format file in Attachment A.5 of JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	F	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_173	The Grid-to-Gran software shall generate the VIIRS Snow/Ice Cover 750m IP in conformance with the XML format file in Attachment A.6 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	F	IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
SRS.01.07_174	The Grid-to-Grid software shall generate the VIIRS Surface Reflectance, Brightness Temperatures, & Vegetation Index Monthly Final gridded IP in conformance with the XML format file in Attachment A.7 of the JPSS Algorithm Specification Vol II: Data Dictionary for Ancillary Data Handling Gridding and Granulation (474-00448-02-07).	F	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_145	The VIIRS Land Surface Albedo 17-day Tile software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for Ancillary Data, Gridding and Granulation (474-00448-04-07) <LSA_GridIP><QF>.	Q	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_159	The JPSS Common Ground System shall execute the Gran to Grid algorithms.	Ai	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_969	The JPSS Common Ground System shall execute the Grid to Grid algorithms.	Ai	Grid IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_970	The JPSS Common Ground System shall execute the Grid to Gran algorithms.	Ai	IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA
SRS.01.07_163	The JPSS Common Ground System shall execute a computing algorithm for granulating the	Ai	IP	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM
	VIIRS Snow/Ice Cover 750m granulated IP.								